**Summary of How Human Development Research Should Inform Educational Practice**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **School Level** | **Ages** | **Best Educational Setting** | **Key Focus** | **Brain Basics** | **Cultural Antecedents** | **Curriculum Emphasis** | **Most Developmentally Appropriate Assessment Approaches** | **Student-Teacher Relationship** |
| Early Childhood | 3-6 | Play space | Play | Rich, dendritic connections, effect of environmental stimulation on synaptic development | Child not morally responsible until age 7 | Rich sensorimotor experiences, open-ended, imaginative play | Observation and documentation of spontaneous play experiences | Student as player, teacher as facilitator |
| Elementary School | 7-10 | Children’s museum | Learning how the world works | Cultural pruning of synaptic growth | Formal skill training | Learning about symbol systems, customs, rules, institutions, the natural world | Performance-based assessments of project-based learning (criterion-based, ipsative measures) | Student as worker/learner, teacher as coach |
| Middle School/ Junior High | 11-14 | Therapeutic milieu | Social, emotional, and metacognitive learning | Limbic system maturity, lack of frontal lobe maturity | Rites of passage (puberty) ceremonies | Affective education, emotional intelligence development, small-group work | Self-assessment (journals, projects), student-teacher review of work, peer review | Student as explorer, teacher as guide |
| High School | 15-18 | Apprenticeships | Preparing to live independently in the real world | Progressive development of frontal lobes | Taking on adult roles and responsibilities | Career preparation and development | Portfolios, certification tests, college prep exams | Student as apprentice, teacher as mentor |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **School Level** | **Ages** | **Key Obstacles to Realization** | **Results of Failure to Employ Appropriate Education Model** | **Pedagogical Tools** | **Examples of Actual School Programs** | **Examples of Misuse of Developmental Goal** | **Examples of How a Subject Should Be Taught (e.g. Reading)** |
| Early Childhood | 3-6 | Pushing back developmental time-tables, inappropriate use of academic achievement model, demise of play, rise of technologies | Hurried child syndrome, stress symptoms (affecting learning, attention and concentration) | Play house, play-ground, hands-on, sensory exploration, dress up, drama, blocks | Roseville Community Preschool, Roseville, CA | Laissex-faire, unsupervised play environments | Not taught at all; only exposure to words, books, etc, as part of the play space |
| Elementary School | 7-10 | Focus on standardized testing, paper-and-pencil learning | Learning disabilities, attention deficit disorder, school discipline problems | Activity centers, field trips, theme-based instruction, project-based learning, simulations | Lowell City School MicroSociety, Lowell, MA | Unstructured, activity-based programs with few outcomes | Rich literature-based, language-based literacy program (with phonemic awareness as an integral part) |
| Middle School/ Junior High | 11-14 | Pressure for academic college preparation and achievement | Gangs, school violence, school apathy, drug use | Active learning, community of learners, affective/social learning, metacognitive strategies | Clarkson School of Discovery, NC | For-profit total milieu therapeutic programs using coercion | Reading for self-discovery, peer reading groups, metacognitive reading strategies |
| High School | 15-18 | Pressure for academic four-year college preparation | Gangs, school violence, school apathy, drug use | Apprenticeships, internships, cooperative education, career counseling | Aviation High School, Long Island, NY | Unsupervised work experiences | Reading for pleasure, work roles, and college preparation |